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## AMENDMENTS TO THE CLAIMS

1. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α and comprises a heavy chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Ser Tyr Asp Met His".

- 2. (Original) The human monoclonal antibody of Claim 1, comprising a heavy chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Val Ile Trp Ser Asp Gly Ser Ile Lys Tyr Tyr Ala Asp Ser Val Lys Gly".
- 3. (Original) The human monoclonal antibody of Claim 2, comprising a heavy chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Glu Val Glu Ser Ala Met Gly Gly Phe Tyr Tyr Asn Gly Met Asp Val".
- 4. (Original) The human monoclonal antibody of Claim 1, comprising a heavy chain amino acid comprising the amino acid sequence shown in SEQ ID NO: 70.
- 5. (Original) The human monoclonal antibody of Claim 1, comprising a heavy chain amino acid comprising the amino acid sequence shown in SEQ ID NO: 74.
- 6. (Original) The human monoclonal antibody of Claim 1, comprising a light chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Arg Ala Ser Gln Gly Ile Arg Ile Asp Leu Gly".
- 7. (Original) The human monoclonal antibody of Claim 6, comprising a light chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Ala Ala Ser Thr Leu Gln Ser".
- 8. (Original) The human monoclonal antibody of Claim 7, comprising a light chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Leu Gln His Lys Ser Tyr Pro Leu Thr".
- 9. (Original) The human monoclonal antibody of Claim 6, comprising a light chain amino acid comprising the amino acid sequence shown in SEQ ID NO: 72.
- 10. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α and comprises a light chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Arg Ala Ser Gln Gly Ile Arg Ile Asp Leu Gly".

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11. (Original) The human monoclonal antibody of Claim 10, comprising a light chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Ala Ala Ser Thr Leu Gln Ser".

- 12. (Original) The human monoclonal antibody of Claim 11, comprising a light chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Leu Gln His Lys Ser Tyr Pro Leu Thr".
- 13. (Original) The human monoclonal antibody of Claim 10, comprising a heavy chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Ser Tyr Asp Met His".
- 14. (Original) The human monoclonal antibody of Claim 13, comprising a heavy chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Val Ile Trp Ser Asp Gly Ser Ile Lys Tyr Tyr Ala Asp Ser Val Lys Gly".
- 15. (Original) The human monoclonal antibody of Claim 14, comprising a heavy chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Glu Val Glu Ser Ala Met Gly Gly Phe Tyr Tyr Asn Gly Met Asp Val".
- 16. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α and comprises VH3-33 heavy chain gene, or conservative variant thereof.
- 17. (Original) The human monoclonal antibody of Claim 16, comprising an A30VK1 light chain gene.
- 18. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α, wherein antibody comprises a heavy chain complementarity determining region 1 (CDR1) corresponding to canonical class 1.
- 19. (Original) The human monoclonal antibody of Claim 18, wherein said antibody comprises a heavy chain complementarity determining region 2 (CDR2) corresponding to canonical class 3.
- 20. (Original) The human monoclonal antibody of Claim 19, wherein said antibody comprises a light chain complementarity determining region 1 (CDR1) corresponding to canonical class 2.

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21. (Original) The human monoclonal antibody of Claim 20, wherein said antibody comprises a light chain complementarity determining region 2 (CDR2) corresponding to canonical class 1.

- 22. (Original) The human monoclonal antibody of Claim 21, wherein said antibody comprises a light chain complementarity determining region 3 (CDR3) corresponding to canonical class 1.
- 23. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α and comprises a heavy chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Arg Asn Tyr Met Ser".
- 24. (Original) The human monoclonal antibody of Claim 23, comprising a heavy chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Val Ile Tyr Ser Gly Asp Arg Thr Tyr Tyr Ala Asp Ser Val Lys Gly".
- 25. (Original) The human monoclonal antibody of Claim 24, comprising a heavy chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Gly Glu Gly Phe Asp Tyr".
- 26. (Original) The human monoclonal antibody of Claim 23, comprising a heavy chain amino acid comprising the amino acid sequence shown in SEQ ID NO: 50.
- 27. (Original) The human monoclonal antibody of Claim 23, comprising a light chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala".
- 28. (Original) The human monoclonal antibody of Claim 27, comprising a light chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Gly Ala Ser Ile Arg Ala Thr".
- 29. (Original) The human monoclonal antibody of Claim 28, comprising a light chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Gln Gln Tyr Asn Tyr Trp Trp Thr".
- 30. (Original) The human monoclonal antibody of Claim 23, comprising a light chain amino acid comprising the amino acid sequence shown in SEQ ID NO: 52.

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31. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α and comprises a light chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala".

- 32. (Original) The human monoclonal antibody of Claim 31, comprising a light chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Gly Ala Ser Ile Arg Ala Thr".
- 33. (Original) The human monoclonal antibody of Claim 32, comprising a light chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Gln Gln Tyr Asn Tyr Trp Trp Thr".
- 34. (Original) The human monoclonal antibody of Claim 31, comprising a heavy chain complementarity determining region 1 (CDR1) having an amino acid sequence of "Arg Asn Tyr Met Ser".
- 35. (Original) The human monoclonal antibody of Claim 34, comprising a heavy chain complementarity determining region 2 (CDR2) having an amino acid sequence of "Val Ile Tyr Ser Gly Asp Arg Thr Tyr Tyr Ala Asp Ser Val Lys Gly".
- 36. (Original) The human monoclonal antibody of Claim 35, comprising a heavy chain complementarity determining region 3 (CDR3) having an amino acid sequence of "Gly Glu Gly Phe Asp Tyr".
- 37. (Original) A human monoclonal antibody that specifically binds to Tumor Necrosis Factor-α and comprises VH3-53 heavy chain gene, or conservative variant thereof.
- 38. (Original) The human monoclonal antibody of Claim 37, comprising an L2VK3 light chain gene.
  - 39. (Cancelled)
- 40. (Currently amended) The human monoclonal antibody of Claim 39-18, wherein said antibody comprises a heavy chain complementarity determining region 2 (CDR2) corresponding to canonical class 1.
- 41. (Original) The human monoclonal antibody of Claim 40, wherein said antibody comprises a light chain complementarity determining region 1 (CDR1) corresponding to canonical class 2.

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- 42. (Original) The human monoclonal antibody of Claim 41, wherein said antibody comprises a light chain complementarity determining region 2 (CDR2) corresponding to canonical class 1.
- 43. (Original) The human monoclonal antibody of Claim 42, wherein said antibody comprises a light chain complementarity determining region 3 (CDR3) corresponding to canonical class 3.
- 44. (Withdrawn) A method for assaying the level of tumor necrosis factor alpha (TNF $\alpha$ ) in a patient sample, comprising contacting an anti-TNF $\alpha$  antibody of Claim 1 or Claim 23 with a biological sample from a patient, and detecting the level of binding between said antibody and TNF $\alpha$  in said sample.
- 45. (Withdrawn) The method according to Claim 44 wherein the biological sample is blood.
- 46. (Original) A composition, comprising an antibody of Claim 1 or Claim 23, or functional fragment thereof, and a pharmaceutically acceptable carrier.
- 47. (Withdrawn) A method of effectively treating an animal suffering from a neoplastic disease, comprising:

selecting an animal in need of treatment for a neoplastic disease; and administering to said animal a therapeutically effective dose of a fully human monoclonal antibody of Claim 1 or Claim 23 that specifically binds to tumor necrosis factor alpha (TNFα).

- 48. (Withdrawn) The method of claim 47, wherein said neoplastic disease is selected from the group consisting of: breast cancer, ovarian cancer, bladder cancer, lung cancer, glioblastoma, stomach cancer, endometrial cancer, kidney cancer, colon cancer, pancreatic cancer, and prostrate cancer.
- 49. (Withdrawn) A method of effectively treating an immuno-mediated inflammatory disease, comprising:

selecting an animal in need of treatment for an inflammatory condition; and administering to said animal a therapeutically effective dose of a fully human monoclonal antibody of Claim 1 or Claim 23, wherein said antibody specifically binds to tumor necrosis factor alpha (TNFα).

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50. (Withdrawn) The method of claim 49, wherein said immuno-mediated inflammatory disease is selected from the group consisting of: rheumatoid arthritis, glomerulonephritis, atherosclerosis, psoriasis, restenosis, autoimmune disease, Crohn's disease, graft-host reactions, septic shock, cachexia, anorexia, ankylosing spondylitis and multiple sclerosis.

51. (Withdrawn) A method of inhibiting tumor necrosis factor alpha (TNF $\alpha$ ) induced apoptosis in an animal, comprising:

selecting an animal in need of treatment for TNF $\alpha$  induced apoptosis; and administering to said animal a therapeutically effective dose of a fully human monoclonal antibody of Claim 1 or Claim 23, wherein said antibody specifically binds to TNF $\alpha$ .

52. -56. (Cancelled)